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ABSTRACT

In a controlled experiment, the IIEP attempted to develop efficient teaching materials in the field of educational planning. Informal instructional materials were compiled from the tape recordings, transcriptions, and summary notes of seminars, lectures, and discussions conducted by the IIEP in its training and research program. This instructional unit is the complementary text to a tape recorded lecture of the same title. In addition to a synopsis of the taped lecture, the text presents some examples of changes in education content or organization and indicates some possible effects of those changes. Discussion questions and a list of suggested readings are also included. Related documents are EA 003 932-942. (RA)

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The Fundamentals of Educational Planning : Lecture - Discussion Series

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No 3 CHANGING THE EXISTING EDUCATIONAL SYSTEM:

SOME BASIC IMPLICATIONS FOR THE EDUCATIONAL PLANNER

by J. D. CHESSWAS

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CHANGING THE EXISTING EDUCATIONAL SYSTEM:

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by

J.D. CHESSWAS

This instructional unit is part of "Fundamentals of Educational Planning: Lecture - Discussion Series" a controlled experiment undertaken by the International Institute for Educational Planning in collaboration with a limited number of organizations and individuals aiming at the development of efficient teaching materials in the field of educational planning. By their very nature these materials, which draw upon tape recordings, transcriptions and summary notes of seminars, lectures and discussions conducted by IIEP as part of its training and research programme, are informal and not subject to the type of editing customary for published documents. They are therefore not to be considered as "official publications".

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SUGGESTED METHOD OF USE OF THE PRESENT INSTRUCTIONAL UNIT

Instructional Unit number IIEP/TM/3/66 is composed of

I. Tape - "Changing the Existing Educational System: Some Basic Implications for the Educational Planner" given by Mr. John D. Chesswas.
Duration: 25 minutes, recorded at 3 3/4 (9.5)

II. Present Document containing

a)	Synopsis of taped lecture	page 1 - 2
b)	Complementary text: "Specific Examples"	page 3 - 8
c)	Questions for further research and discussion	page 9
d)	Suggested additional reading	page 9

Student or class should first listen to taped lecture. Subsequently, read the text on pages 3 - 8. Suggested questions on page 9 can be used as a basis for a group discussion or may be specifically assigned to the student for further research or study.

SYNOPSIS OF TAPED LECTURE

In the drafting or preparation of a new educational plan there are four main stages: 1) Survey of current social, political, economic and financial conditions; 2) Survey of the educational situation, 3) determination of educational needs and problems and formulations of possible solutions; and 4) Formulation of the draft overall plan for education with indications of its objectives and means. This lecture deals with the third stage. Who decides what the qualitative objectives of the educational system should be? How can these objectives best be met? What are the problems and possible solutions, which must be considered?

1) The new plan is usually the result of the work of some commission, interministerial committee, or working party. No one person, ministry or organization can supply all the elements necessary for the plan; the latter must essentially be a matter of consultation and of team effort. The ministry dealing with economic planning and development is obviously directly involved. The Ministry of Works is concerned because of the buildings to be provided. The Ministry of Health, the Ministry of Agriculture, or the Ministry dealing with industry are interested as consumers of high level manpower; the Ministry of Agriculture, moreover, is itself engaged in different types of education which have a direct effect on economic progress. A University is usually separately administered but it must be consulted, as also must be private schools and employers' organizations.

2) The educational planner will probably be required to report to the planning body on the current situation of the system: on the present stocks and, if possible on the flows, and on projections of the annual outputs from the system.

3) The body will work out a strategy, suggesting where emphasis should be laid, and reasons therefore. One of the factors to be taken into account, but not the only one, is the manpower survey and forecast. There are differing opinions on the degree to which manpower forecasts should control development, and on the possible conflict between the "utilitarian" aspect of the educational services (as the supplier of qualified manpower) and their cultural and social aspects.

4) When content of education and the structure of the system are considered by a planning body the existing provisions cannot be ignored. Teachers have been trained, and equipment and types of classrooms provided to cope with the existing syllabus. The latter cannot just be set aside, if only because of the

investment contained in it. Inevitably one must think in terms of progressive changes.(1) In any case, one must first decide what kinds of education should be provided before determining how many people with each such kind of education are required. This is self-evident, but cannot be overstressed.

5) The educational planner should be asked to review the suggested solutions and assess their impact. What effect would proposals have on, for example: a) flows and outputs of students; b) existing teachers (e.g. would proposals necessitate retraining or supplementary training of teachers?); c) equipment (e.g. would any additional equipment be needed in existing schools? Would there be an appreciable waste in equipment declared redundant, and what could be done about it?); d) would existing premises have to be modified?; e) costs: would any change result in capital and/or recurrent unit cost rates? Could it be assessed?; f) Finally, could a rough estimate be made of the overall financial implications? One must try to assess whether the proposals are feasible financially.

If all these precautions are not taken it may be that the work of the planning body will be wasted, at least in part.

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(1) A few examples of these changes are mentioned in pages 3-7 of the present document.

CHANGING THE EXISTING EDUCATIONAL SYSTEM:

SOME BASIC IMPLICATIONS FOR THE EDUCATIONAL PLANNER

Specific Examples

You will recall that Mr. Chesswas suggested several specific areas where changes might be made in the content of education and the structure of the system. It would now be wise to look in more detail at some of the possible changes which he mentioned and see what effects they may have. We will consider here changes in:

1. curriculum
2. the structure of the school system
3. numbers of years for sections of the system
4. grade at which specialization begins
5. separate type schools to comprehensive schools
6. qualification and training required
7. class size and student/teacher ratio
8. boarding to day proportions
9. teaching methodology

Since ultimately all these changes will have to be paid for, it is essential to keep an eye on their cost effects. Educationists, and others, often ignore the cost aspect, or presume that the money will be found somehow for a worth-while purpose. The educational planner must bring home the hard facts about the money required for various proposals.

1. Curriculum changes

a) These may result in changes in class size, or other teaching group size, especially for practical subjects, with a possible change in over-all student/teacher ratio, and a consequent change in the teacher cost per student.

b) If the proposals include a shifting of emphasis as between subjects, e.g. placing more emphasis on science than arts, there would be a consequent effect on teacher-training requirements, with a general effect on the teacher-training system, its staffing, buildings, and equipment. The question might arise, at least for a temporary period, of the

possibility of using auxiliaries, who might have to be given basic training, and whose salaries being lower than those of teachers, would have an effect on unit costs.

c) The proposed changes in the curriculum might mean a change in the need for specialist rooms, and one would need to watch the resultant seat/student ratio, e. g. in a three section mixed school, secondary general, in a four-grade system with 35 students per class, the situation would be as follows:

Total number of classes 3 (sections each grade) x 4 (grades) = 12 (classes)

Total number of places 12 (classes) x 35 (students per class) = 420 (places)

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Teaching rooms	'Seats'
12 classrooms (general)	420
2 Art and Craft rooms	70
3 Laboratories	105
2 Home Economics rooms	36
2 Workshops	36
1 Technical Drawing room	35
Total	702

702 seats for 420 places = $\frac{702}{420}$ = 1.67 seats per place;

or at any one moment 702 - 420 = 282 seats, i.e. 40% of the total, are unoccupied. Therefore there is a possible need to adapt, e.g. reduce the number of general classrooms.

d) Also there might be a change in the nature and/or quantity of equipment needed, with consequent changes in costs.

2. Changes in the structure of the school system

a) If a new type of course were introduced, there would be a need for calculation of costs arising from:

i) Students per class;
ii) Student/teacher ratio;
iii) Buildings and equipment needs.

If such a course has never been run in the country before, one might have to seek advice from other countries which have been running that type of course.

b) If a course were abolished or reduced in volume, consideration would have to be given to the future use of the premises, equipment, and staff, thereby released. If a course is abolished, plans would have to be made to run it down, since there would be an obligation to the children already in the "pipeline".

3. Changes in numbers of years for sections of the system

a) A simple increase or decrease in the number of years for a course would have an effect on the number of places required to achieve the same output, and on the premises and teachers, with the resultant effect on the overall cost per student graduating.

b) If a decision were made to amalgamate two stages of the educational system, the repercussions would have to be carefully calculated, e.g. the change in Uganda from a basic course in which a 6-year primary course followed, after about 40 per cent selection, by a 2-year junior secondary, has to be changed to an automatically promoted 7-year course. (See page 8.) The results on teacher supply have to be carefully considered, and in this particular case it meant virtually the abolition of all supernumerary posts, as it is shown in the following table. (N.B. Allowance had already been made in teacher supply for the replacement of wastage, and the figures shown for development are the output from the colleges, minus the allowance for replacement.)

Year	Classes			Teachers (including Heads of schools)		
	Junior Secondary 1	Junior Secondary 2	Total	Development (output from colleges)	Stock	Super-numerary
1964	647	545	1,192		1,586	394
1965	647	647	1,294	144	1,730	436
1966	807 +	647	1,454	160	1,890	436
1967	2,050 +	-	2,050	180	2,070	20

+ = Primary 7

4. Changes in grade at which specialization begins

This may mean considerable changes in:

a) The qualifications and subjects of teaching staff.

b) The kinds of teaching rooms.

c) The kinds and quantity of teaching equipment.

5. Change from the system of separate type schools to comprehensive schools

The possible consequences here are vast. The situation would have to be reviewed carefully, and consideration given to such possibilities as amalgamating neighbouring schools of different types, e. g. different types of schools on the same overall church compound.

6. Changes in qualification and training required for teachers

This is usually an up-grading of the requirements, and may easily take the form of a higher level entry, e. g. rise from the end of the first level to the first cycle of the second level, with possible consequential reduction in the number of years of training, owing to the better ability of the higher educated entrants to assimilate the training.

a) A change in the length of the training means a change in the output from the same given total enrolment, e.g. a total enrolment of 6,000 for a 4-year course gives an output of about 1,500 per annum, whereas for a 2-year course, it would give an output of about 3,000 per annum.

b) A change in the level of intake may mean a need for higher qualified staff in the teacher-training colleges, and a consequent problem with regard to the disposition of the lower qualified staff, and the possibility of additional training for them. It might also have an effect on the type of buildings and equipment, and would possibly result in a rise in the standard of living of the students. All of these factors may affect unit costs, both recurrent and capital.

7. Changes in class size and/or student/teacher ratios

a) There would be a resultant change in the numbers of classes and/or teachers required for the same given enrolments.

b) There might be a need to change the sizes of rooms, and possibly adapt existing buildings and therefore:

c) There might be consequent changes in both capital and recurrent unit cost rates.

8. Changes in boarding/day proportions

As a country develops, so usually does the degree of industrialization, and consequently urbanization, which will have an effect on the proportion of day and boarding education, especially at the second level, where it is possible that rural education may have had to be boarding. The shift of emphasis will alter costs.

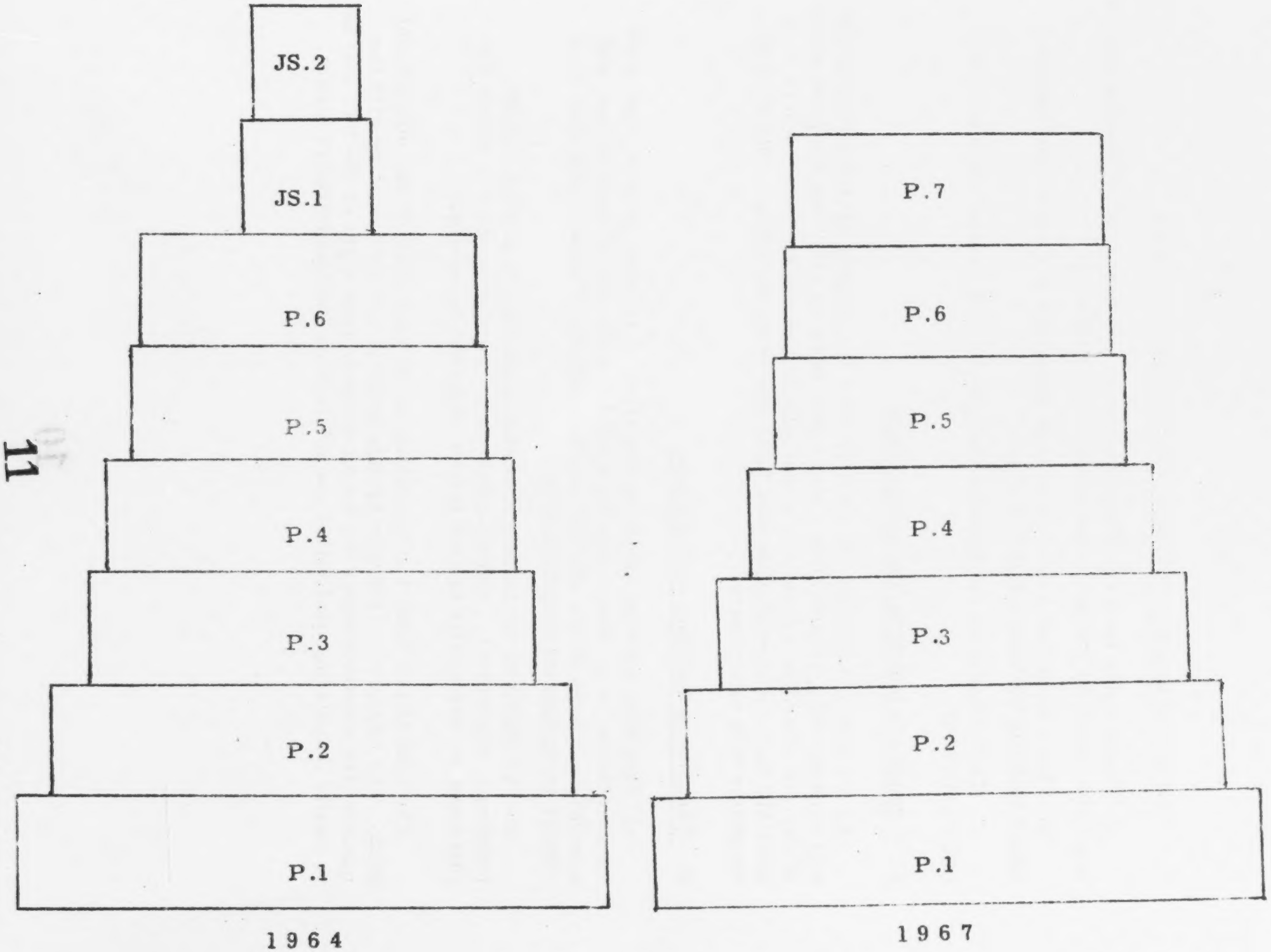
9. Changes in teaching methodology

a) This may have an effect on the sizes of teacher groups, and staff requirements, e.g. there may be a need for the use of auxiliaries, and a possible change in the student/teacher ratios. There would also be a change in equipment requirements.

b) The whole of the technical aspect must be considered - staff, buildings, equipment, running costs etc. - a large subject to which the full answer, especially in cost terms, may not be available.

The qualitative aspect of education is the real core of any educational plan. The educational planner spends most of his time dealing with the quantitative considerations but he must never lose sight of the fact that he is really translating qualitative considerations into quantitative terms.

Change in Primary School Structure



P = Primary
JS = Junior Secondary

Questions for further research and discussion

1. In reports of various missions and in different country reports undertaken by bilateral or multilateral agencies, what are the proposed changes of the existing educational systems which have not been discussed in this lecture? Are there any other factors which you could add to the list of changes?

2. To what degree is university planning integrated into the educational plan in your own country? Review the case of Sweden; what have they done in recent years with regard to university planning?

3. Review the school syllabus of a given country to see to what extent the system has been influenced by the utilitarian approach of seeking to provide skills for the economy and to what extent, on the contrary, it is serving the social and cultural needs of the society; a) where does the emphasis lie? b) to what extent, if at all, does the existing plan shift the emphasis?

4. What are some of the planning problems which arise when changing teacher qualifications?

Suggested Additional Reading

Organization for Economic Co-operation and Development. Planning education for economic and social development. H.S.Parnes. Paris, OECD, October 1963. Read Sections I, VIII, XVIII and in Section XX, paragraph at top of p. 197.

Parnes, H.S. Forecasting educational needs for economic and social development, Paris, OECD, October 1962. - Read Sections I and V.

UNESCO. Elements of educational planning. Paris, UNESCO, 1963. (Educational studies and documents, no. 45) - Read Section II.

Harbison, F. and Myers, C. A. Education, Manpower and Economic Growth: Strategies of Human Resource Development. New York, McGraw-Hill, 1964 - Read Chapters 8 and 10.